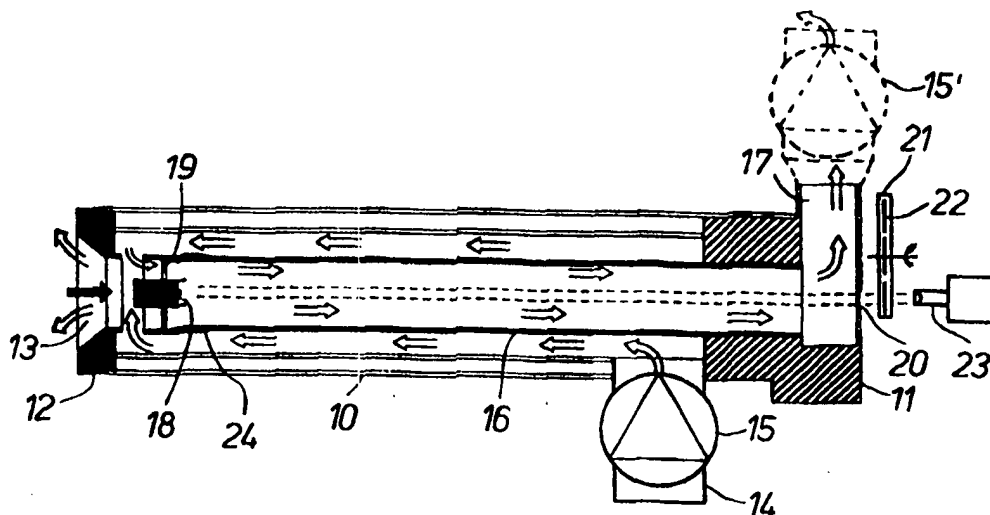




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<b>(21) International Application Number:</b> PCT/SE97/01854 <b>(22) International Filing Date:</b> 6 November 1997 (06.11.97) <b>(30) Priority Data:</b> 9604059-7 6 November 1996 (06.11.96) SE <b>(71) Applicant (for all designated States except US):</b> SERVOTEK AB [SE/SE]; Villa Fortuna, S-232 91 Arlöv (SE). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> OLSSON, Sven, Gunnar [SE/SE]; Villa Fortuna, S-232 91 Arlöv (SE). BRAUER, Stefan [SE/SE]; Kollegievägen 56, S-224 73 Lund (SE). LINGE, Anders [SE/SE]; Helgesväg 7, S-244 36 Kävlinge (SE). NIININEN, Tarmo [SE/SE]; Guldregngsgatan 27, S-243 32 Höör (SE). NILSSON, Krister [SE/SE]; Aktrigsgatan 10, S-215 83 Malmö (SE). RYDGREN, Göran [SE/SE]; Strandängsvägen 4, S-230 44 Bunkeflostrand (SE). <b>(74) Agents:</b> STRÖM, Toré et al.; Ström & Gulliksson AB, P.O. Box 4188, S-203 13 Malmö (SE).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Swedish).</i>

**(54) Title:** METHOD AND APPARATUS FOR DETERMINING INDIRECTLY THE CONCENTRATION OF A SPECIFIC SUBSTANCE IN THE BLOOD

**(57) Abstract**

Method and apparatus for determining in a person's exhalation air the concentration of a specific substance in the blood by measuring the concentration of said substance and the concentration of water vapour in the exhalation air and utilizing a known relationship between these concentrations. When the method is applied the exhalation air is exhaled freely in a defined air volume having a predetermined composition, and said concentrations are measured in this air volume. The apparatus for working the method comprises a device (16) which defines a space for receiving the exhalation air, which has two mutually opposite openings through which the space communicates with the surrounding air, and means (18, 22, 23) for selective quantitative detection of said substance in the air in the defined space.

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